



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/752,894

01/07/2004

Craig D. Tipton

3255R

4557

26645 7590 03/21/2007

THE LUBRIZOL CORPORATION
ATTN: DOCKET CLERK, PATENT DEPT.
29400 LAKELAND BLVD.
WICKLIFFE, OH 44092

EXAMINER

GOLOBOY, JAMES C

ART UNIT

PAPER NUMBER

1714

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

03/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

8

Office Action Summary	Application No. 10/752,894	Applicant(s) TIPTON ET AL.	
	Examiner James Goloboy	Art Unit 1714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The rejections set forth in the office action mailed 9/8/06 are overcome by applicant's amendments of 1/4/07. New grounds of rejection necessitated by the amendments are set forth below.

Claim Rejections - 35 USC § 103

2. Claims 1, 3-4, 7, 10, 13-15, and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten (U.S. Pat. No. 3,992,307).

The rationale for the rejections of claims 1, 3-4, 7, and 15 are adequately set forth in paragraph 8 of the office action mailed 9/8/06. Amended claim 1 contains the subject matter of original claim 2, which has been cancelled. The compositions of Hotten also contain a succinimide dispersant, as in claim 10. In column 11 lines 3-18 Hotten teaches an amount of oil sufficient to provide a concentrates, as in claim 13, and the examples of columns 13-14 are fully formulated lubricants, meeting the limitations of claims 13-14. Hotten additionally teaches that the lubricant compositions can be used in transmission fluids, meeting the limitations of claims 26-27.

3. Claims 5-6, 12, 17-25, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Suyama (U.S. Pat. No. 6,127,325).

The rationale for this rejection is adequately set forth in paragraph 9 of the office action mailed 9/8/06.

Art Unit: 1714

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Hasegawa (U.S. Pat. No. 6,153,118).

The rationale for this rejection is adequately set forth in paragraph 10 of the office action mailed 9/8/06.

5. Claims 9 and 11 rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Papay (U.S. Pat. No. 5,652,201).

The discussion of Hotten in paragraph 8 of the office action mailed 9/8/06 is incorporated here by reference. Hotten discloses the use of dispersants and aliphatic phosphorus ester antiwear agents, but does not disclose the concentration ranges of claims 9 and 11.

Papay, in the table of column 50 lines 10-15, discloses a particularly preferred concentration of 1-8% by weight for a dispersant ("component b") in a lubricating composition, encompassing the range recited in claim 11. In columns 53-61 Papay discloses numerous compositions comprising between 1.2 and 4.8% by weight of the dispersant, falling within the range recited in claim 11. In the table of column 50 lines 45-55, Papay discloses a preferred composition of 0-2% by weight for an antiwear agent, encompassing the range recited in claim 9 and matching the 2% endpoint.

It would have been obvious to one of ordinary skill in the art to use the dispersant and antiwear agent of Hotten in the concentrations of Papay, as Papay discloses that those are particularly preferred concentrations for such additives in lubricating compositions.

6. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hotten in view of Horodysky (U.S. Pat. No. 4,522,734).

The discussions of Hotten in paragraph 8 in the office action mailed 9/8/06 and Horodysky in paragraph 11 of the office action mailed 9/8/06 are incorporated here by reference. Hotten discloses from column 10 line 62 through column 11 line 2 that the lubricating composition can include additional additives, but does not specifically disclose friction modifiers.

In the abstract, Horodysky teaches that borate esters of hydrolyzed hydrocarbyl alkoxides are effective friction modifiers and multifunctional additives for lubricants, and further teaches in column 1 lines 44-54 that these borate esters provide advantages over non-borated friction modifiers.

It would have been obvious to one of ordinary skill in the art to utilize the borate esters taught by Horodysky as friction modifiers in the composition of Hotten, in order to impart the friction modification, anti-oxidation and high-temperature properties possessed by those esters, as taught in column 1 lines 44-54 of Horodysky.

Response to Arguments

7. Applicant's arguments filed 1/4/07 have been fully considered but they are not persuasive.

With regard to the rejections under 35 USC 103 in view of Hotten, applicant has made three arguments:

- i) The zinc dihydrocarbyldithiophosphate will serve as an antioxidant, and would not be omitted since Hotten desires improved antioxidation properties.
- ii) One seeking to solubilize terephthalic acid would not look to the technology of Hotten.
- iii) The zinc dihydrocarbyldithiophosphates of Hotten do not solubilize terephthalic acid, and thus unexpected results are allegedly achieved with the compositions of the present invention which comprise other phosphorus-containing compounds.

With respect to i), Hotten teaches (column 2 lines 24-58) that the anti-oxidation and anti-wear properties of certain types of conventional anti-oxidants (column 2 lines 27-34) can be improved by the addition of a bisphosphoramidate activator. Zinc dihydrocarbyldithiophosphates are not among the types of anti-oxidants improved by the bisphosphoramidate. The anti-oxidant properties of the zinc dihydrocarbyldithiophosphate additives are not disclosed as critical to the invention, and therefore it would have been obvious to exchange the zinc-containing compounds with the other anti-wear compounds disclosed in column 1.

Argument ii) is unpersuasive, as a prior art reference is analogous if the reference is in the field of applicant's endeavor or, *if not*, the reference is reasonably pertinent to the particular problem with which the inventor was concerned. In re Oetiker,

Art Unit: 1714

977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). Hotten is in the same lubricant field as the current application, and hence it is pertinent.

With respect to iii), the declaration of Tipton included with applicant's arguments only demonstrates that the terephthalic acid in the compositions of Hotten is insoluble. No data is provided in the declaration, or the examples in the original specification, of the solubility of the claimed compositions, and therefore no comparison can be made. Should applicant argue that examples 5-7 in Table I of the specification are examples of compositions comprising dissolved terephthalic acid, it is noted that the examples are incommensurate with the scope of claims 1 and 4, as they cover only a narrow range of concentration of terephthalic acid (0.005 to 0.01%), while claim 1 encompasses any concentration, and claim 4 recites a range that is broader than the one exemplified.

With regard to the rejection of claim 17 over Hotten in view of Suyama, applicant asserts that the order of mixing is significant, but has not provided any evidence in either the specification or declaration that the claimed order of mixing provides new or unexpected results versus other orders of mixing that could be used to form the composition of Hotten in view of Suyama. In the absence of such a showing, the order of mixing is *prima facie* obvious. Should applicant argue that examples 5-7 in Table I of the specification are sufficient evidence, it is noted that the examples are incommensurate with the scope of claim 17.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Goloboy whose telephone number is 571-272-2476. The examiner can normally be reached on M-F 8-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1714

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

James C. Coladay
JCG

Cam Jagannathan
VASU JAGANNATHAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700